

IN THE SPECIFICATION

Please amend the following paragraphs as indicated:

[0019] FIG. 2 provides a flow chart of the knowledge support algorithm. Request for knowledge base search 512 comes from the dialogue act control unit. (ref. Fig. 1) The judgment unit 514 decides whether it is a request for objects and their properties 516 or for processes and their relations 518. At decision point 520, if the property is found, results will go out at return 524, otherwise, the parent concept will be searched for the property. At decision point 526, if the relation information is found, it will be sent out. Otherwise, using any nearest neighbor search algorithm for similar concepts, the search is re-directed to this concept. Both of the re-direction procedures are iterative.^z

[0020] FIG. 3 provides a flow chart of the dialogue management algorithm. This unit controls the information flow of the conversation system. Recognized words 622 from the speech recognition engine are sent to natural language understanding engine at procedure 624. The result of conceptual understanding ~~626~~ ⁶²⁵ is sent to context rule engine for further interpretation, such as the hidden implicature of the utterance by procedure 630. Once the interpretation is obtained, the knowledge support engine is called at procedure 632 to search relevant knowledge as the basis for generating responses. At decision point 634 TTS engine may be called to generate speech response to the user. At decision point 638 business servers may be called to perform some requested actions for the user, before control is transferred to the next dialogue turn.^z

[0021] FIG. 4 provides a flow chart of the context information update algorithm. The natural language understanding result 720 is examined at decision point 730 with respect to context information structure (ref. 420 in Fig.1). At the decision point 750 it is examined whether enough information is contained in the concept structure. If enough information is found, the context information unit generates a normal output 770; otherwise it sets a check for clarification with the user. If the previous context is in checked state, it is examined whether this check is a yes/no question or not 740. With the yes/no check, if the expected answer is obtained, a normal output is generated 782. Otherwise a check is set up again. In case of other checks, again a decision is made at 780 to judge whether expected answer is obtained or not.^z